Protecting the environment

The town of Artois rarely attracts a crowd.
But in May 2002, the Glenn County hamlet was the center of attention.

About 50 people gathered for a tour of an environmental project that has gained statewide attention for its comprehensive, innovative approach.

Since 1997, the Glenn County Surface Water Stewardship Committee, under the leadership of County Agricultural Commissioner Ed Romano, has established a model surface water protection program. "The best way to help people understand just how much progress we've made in the field is to show them first-hand," said Romano. "Our field day tours and demonstration projects bring together University of California researchers, environmental advocates, growers, and regulators in a way that gets people excited about our work."

Last May's tour highlighted UC research to measure field runoff, explained how tiny, parasitic wasps can effectively control aphid damage in orchards, and included a demonstration of a "smart sprayer" that senses when to turn itself off.

DPR holds a strong interest in Glenn County's efforts, based on the Department's longstanding environmental monitoring program for agricultural runoff. In 2001, DPR analyzed ten years of monitoring data gathered by the Department and other agencies for chlorpyrifos and diazinon, two widely-used pesticides found in both agricultural and urban settings. While DPR's extensive research found no surface water pesticide levels that posed an immediate human health hazard, the data suggested that aquatic life might face adverse impacts. More than 6,600 water monitoring samples gathered by DPR and other agencies have been posted in DPR's Surface Water Database, available to researchers and the public on CD-ROM.

While the Davis Administration had earmarked more than $3 million to expand DPR's surface water protection initiatives, the State Budget deficit forced the Department to suspend monitoring activities in 2002. However, DPR remains committed to assisting the State Water Resources Control Board and its Regional Boards with data as they impose pesticide "total daily maximum loads" in surface water. As part of this process, DPR will provide technical assistance in reviewing data and offer regulatory solutions to complex problems.

On a related front, DPR made changes in a rice water monitoring program during 2002. An industry coalition now holds greater accountability as part of a longstanding program to keep rice herbicides out of the Sacramento River. DPR and the Sacramento Regional Water Quality Board will work as co-regulators, assessing the program's performance. As the regional water board evaluates the rice industry's progress, DPR stands ready to fine-tune rice herbicide controls if needed.

"With these changes in our surface water policy, DPR moves into a new era of environmental protection," said Director Paul Helliker. "We expect to see more involvement by those who are responsible for pesticides, whenever use of a pesticide poses a concern for the environment.

"At the same time, we will give industry ample opportunities to address these environmental concerns with specific actions and timetables," added Helliker. "If industry efforts prove successful, that will prevent the need for expensive and time-consuming regulatory controls."

CLOPYRALID AND COMPOST: Concerned about residues showing up in compost that could be toxic to plants, DPR in 2002 initiated cancellation action against 15 products containing the herbicide clopyralid, labeled for use on residential lawns. This action prompted clopyralid registrants to ask U.S. EPA for approval to change their product labels to prohibit use on residential lawns as well as many other kinds of turf areas. When grass clippings are sent for recycling into compost, low-level residues sometimes persist which could harm other, beneficial plants. Products used in agriculture (primarily against yellowstar thistle) are not affected since these uses do not contribute significantly to the compost stream.

DPR and the California Integrated Waste Management Board held four meetings to bring together composters, clopyralid users, and others to gain more information on how use of the herbicide may affect compost. DPR and the Board also began formal consultations with U.S. EPA to develop tests to assess the fate of herbicides in the composting environment. Legislation passed in 2002 (AB 2356) also addressed the issue by limiting the sale of any product containing clopyralid to qualified applicators through licensed pest control dealers. By April 2003, DPR must also identify which lawn and turf uses are likely to cause residue problems in compost and impose restrictions or cancel those uses.

A BETTER WAY TO PROTECT GROUND WATER: DPR's goal is to eliminate the pollution of ground water by pesticides. Working with monitoring data collected over more than a decade, DPR scientists developed a method to profile the geographic characteristics of areas vulnerable to ground water contamination by pesticides. Vulnerable areas have been delineated based on soil type and estimates of depth to ground water. A unique aspect of the program is that different routes to ground water have been discovered and have been related to the soil characteristics of vulnerable areas. In 2003, DPR will propose regulations that will replace the current scattered groupings of pesticide management zones, where use of certain pesticides is prohibited or restricted, with broader geographical areas called ground water protection areas. Growers will be allowed to use pesticides in vulnerable areas but must employ specific use practices designed to prevent contamination of ground water.